PROGRAMMING FUNCTIONS FOR YOUR WALLET OR GLOVE BOX

ATTENTION:
We urge you to immediately place this card in your wallet.

Adding Additional Remotes Press and hold brake. Next, press and hold Button #1 on the working remote until the parking lights flash once. Release. Press and release Button #4 on the new remote. The parking lights will flash three (3) times confirming that the new remote was learned. **Programming Runtime with Brake not Pressed** Press and hold Button #4. The parking lights will flash once for every five (5) minutes you want to program. Release button at desired runtime.

CONTENTS

System Features....4
System Components....5
Required Tools....5
Technical Assistance....5
Before You Begin....5-6
Precautions....6
Optional T-Harness Installation....7
Using your Test Probe....7
Making Connections....7-9
Locating & Making Connections....9-12
Neutral Safety Switch....12-13
Antenna Placement....13
Connecting Wiring Harness....13-14
Factory Anti-Theft System....14-15
Optional Features....15-19
Operator Programming Instructions....19-20
How to use Your Remote Transmitter....21
Vehicle Anti-Theft System Chart....22-24
FCC ID Notice....24
Important Functions....25-26

Protected by one or more of the following patents. Other patents pending.
Patent #5,942,988 Patent #6,452,772
Patent #6,101,428 Patent #5,677,664
Patent #5,886,622 Patent #5,612,670
Patent #5,459,447

SYSTEM FEATURES

One Four-Button Extended Range Remote Control	Remotely start your car to run the heater, air conditioning or defroster from an extended distance.
Keyless Entry	Remotely locks and unlocks your power door locks.
Trunk Release/ Sliding Door	Remotely open your power trunk or your power sliding van door with a push of a button.
Remote Programmable Run Time	Remotely program your vehicle to run 5 to 15 minutes.
Run Time Confirmation	Check the programmed run time with your remote.
Tach/Tachless Option	A programmable feature that lets you choose from the easy to install tachless operation or the wire-in, tach operation.
Parking Light Confirmation	Confirms that your vehicle has received a remote signal and will remain on if the engine is remotely started.
Dome Light Supervision	Never walk up to a dark vehicle again. When unlocking the doors by remote control, the dome light will come on and stay on for 1 minute. This feature will shut off when you activate the ignition switch and step on the brake.
Cold Start	Remotely program your car to start at a preset temperature. Automatically starts your car in freezing temperature so you never have a dead battery.
Pit Stop Mode	Allows you to exit the vehicle while the engine remains running without leaving the key in the ignition switch.
Code Learning	Allows your remote starter to learn new remotes, should you want to add remotes, or if remotes are lost.
Limited Lifetime Warranty	Guarantees life-long protection.

WARRANTY VALIDATION

PLEASE FILL OUT THIS FORM TO REGISTER YOUR WARRANTY

Your Name _____

Address _____

_____

Dealer Name _____

Address _____

_____

Date of Purchase ___/___/___ Model # _____

Make/Model of Car _____

Year of Car _____ V.I.N. # _____

Final Quality Check By _____

Mail to: Access 2 Communications
225 Technology Way • Steubenville, Ohio 43952

OPERATING FUNCTIONS FOR YOUR WALLET OR GLOVE BOX

ATTENTION:
We urge you to immediately place this card in your wallet.

Starting with the Remote Transmitter Press and release button #1. The parking lights will flash once, confirming the car starter received the signal. The car will then start and the parking lights will remain on while the vehicle is running. To shut off the engine before the preset time, press button #4 or press the brake pedal. **NOTE:** If your car does not start on the first crank it will automatically attempt to start 2 more times (in tachless mode). While in tachless mode, parking lights will wait approximately 10 seconds before turning on. **Pit Stop: Exiting the Car with the Engine Running** Make sure the transmission is in park and press button #1 before turning the ignition switch off. **Keyless Entry Operation** Press button #2, the parking lights will flash once and the doors will lock. Press button #2 again, the parking lights will flash twice, the doors will unlock, and the parking lights will remain on for one minute or until you turn the ignition on or press the brake. **Dome Light Option** (optional) The dome light will remain on for one minute or until you turn the ignition on and press the brake. **Trunk Release Output** Optional output modules are available to do one of the following: open the trunk, open your sliding door, roll up the windows, close the sun roof, etc. This output will pulse .75 seconds when pressed and released. In instances where a continuous signal is needed such as sun roof and power windows, hold down button #3 as long as the signal is needed. The parking lights will remain on as long as this button is being pressed.

VEHICLES WITH FACTORY ANTI-THEFT SYSTEMS

Manufacturer	Model/Year	Anti-theft
MERCURY	COUGAR 99+	TRANSPONDER
	MOUNTAINEER 98+	TRANSPONDER (Some)
	MYSTIQUE 97+	TRANSPONDER (Some)
	SABLE 96+	TRANSPONDER
NISSAN	MAXIMA 98+	TRANSPONDER
OLDSMOBILE	ACHIEVA 95+	PASSLOCK 1
	ALERO 99+	PASSLOCK 2
	AURORA 95+	VATS
	BRAVADA 98+	PASSLOCK 2
	CUTLASS 97+	PASSLOCK 2
	NINETY-EIGHT	VATS
	SILHOUETTE 99+	TRANSPONDER
PONTIAC	BONNEVILLE 89+	VATS
	FIREBIRD 88+	VATS
	GRAND AM 96-98	PASSLOCK 1
	GRAND AM 99+	PASSLOCK 2
	GRAND PRIX 92-96	VATS
	MONTANA 99+	TRANSPONDER
	SUNFIRE 96-99	PASSLOCK 1
	SUNFIRE 2000+	PASSLOCK 2
PORSCHE	ALL 97+	TRANSPONDER
SAAB	ALL 97+	TRANSPONDER
SATURN	ALL 97+	FACTORY
	2000+	TRANSPONDER
TOYOTA	AVALON 98+	TRANSPONDER
	CAMRY 98+	TRANSPONDER
	LAND CRUISER 98+	TRANSPONDER
	SOLARA 99+	TRANSPONDER
	SUPRA 98+	TRANSPONDER
VOLKSWAGON	BEETLE 98+	TRANSPONDER
	GOLF 98+	TRANSPONDER
	PASSAT 98+	TRANSPONDER
VOLVO	ALL 98+	TRANSPONDER

FCC ID: J3STXJS1194

This device complies with part 15 of the FCC Rules, Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

SYSTEM COMPONENTS

Your system includes:

1- Four Button Remote Transmitter
1- Main Control Module
1- 16-Pin Wire Harness
1- 5-Pin Door Lock Harness
6- Heavy Gauge Wires w/ Spade Connectors
1- Hood Switch
1- Warranty
1- Warning Sticker for Under the Hood
1- Installation & Owner's Guide
1- Bonus Installation Kit

REQUIRED TOOLS

In most cases no additional tools are required for an underdash installation however, if the bottom of your dash on the driver's side is enclosed, it may be necessary to remove this bottom panel with a screwdriver or a wrench. When installing the hood pin, a cordless drill or screw gun may be needed.

TECHNICAL ASSISTANCE

Should you need help. For the most common installation problems check our website at www.bulldogsecurity.com or call our toll-free Tech Support Hotline Monday through Friday 9AM-5:30PM at 800-878-8007.

Before you begin, check our website at www.bulldogsecurity.com for complete wiring information for your vehicle.

When contacting technical support you must give the following information:

- Name
- Telephone Number with Area Code (Fax number if applicable)
- Year, Make, and Model of the vehicle
- The model number of the system you are installing

If you give the above information you will be called in the order your call was received.

BEFORE YOU BEGIN

Congratulations, you have purchased one of the most advanced remote starter systems ever made. Your new remote starter is a technological breakthrough utilizing the most advanced, state-of-the-art technology and components. It is computer controlled and manufactured in the U.S.A. The dependability and variety of features make Bulldog Security the leader in the industry. Enjoy your new remote starter for years to come!

This remote system is designed to start your vehicle by sending a command signal from the remote transmitter or by programming automatic temperature start. It is required that your installation be done in a well-ventilated area. **It is the responsibility of the owner to ensure that the remote system is not used to start the vehicle in an undesired location.**

BEFORE YOU BEGIN

It is recommended that a carbon monoxide detector be installed in the living area near the location where the vehicle may be garaged.

Since there are many different makes and models of vehicles, look at the wiring chart on our website, **www.bulldogsecurity.com.**

Please do not skip any steps. Mount the control module under the driver's dash inside the vehicle after all connections have been made. Do not mount the control module in the engine compartment. Read this manual thoroughly BEFORE starting the installation. Most newer vehicles may have a factory anti-theft system. Refer to pages 22 through 24 to see if this applies to your vehicle. If you vehicle is equipped with this system, an additional module, Part #791, will be required. Contact www.directwholesale.net or call 800-659-0764 to order this item.

MAKE SURE YOU PLACE THE WARNING STICKER UNDER THE HOOD.

PRECAUTIONS

This system is designed for use with vehicles equipped with fuel-injected, gasoline engines and automatic transmissions only.

SAFETY FIRST!
Never remotely start your vehicle indoors. **A periodic safety check is recommended** to ensure that your system is in proper working order. Start the vehicle and press the brake. Your vehicle should shut down immediately. Start the vehicle from inside the vehicle, open the hood release. The vehicle should shut down immediately.

DO NOT use mechanical wiring connections, such as **crimp or snap together wire connectors.** Instead, follow the instructions on pages 7-9.

DO NOT disconnect the battery if the vehicle has an anti-theft-coded radio or is equipped with an airbag. Doing so may cause a warning light to be displayed which may require a trip to the dealer to be corrected.

DO NOT mount the control module until all connections have been made and tested. Use wire ties or double sided tape. **MOUNT THE MODULE UNDER THE DRIVER'S DASH.**

PLEASE USE CAUTION: DO NOT CUT, PROBE OR DISCONNECT THE VEHICLE'S AIRBAG WIRES. THESE WIRES WILL ALMOST ALWAYS BE INSIDE A BRIGHT YELLOW TUBE LOCATED NEAR THE STEERING COLUMN HARNESS.

WARNING!

GENERAL MOTORS REAR WHEEL DRIVE VEHICLES AND DODGE DAKOTAS
All General Motors rear wheel drive vehicles and Dodge Dakotas built prior to 1996 do not have an electrical neutral safety switch. They have a mechanical neutral safety switch. The mechanical neutral safety switch operates as follows.

a) The key will only turn to the start position when the gear selector is in park or neutral.
b) The key can only be removed from the ignition switch when the gear selector is in the park position.

You must use special precautions with this system. For more information see page 12-13.

VEHICLES WITH FACTORY ANTI-THEFT SYSTEMS

Manufacturer	Model/Year	Anti-theft
CHRYSLER	CONCORD 98+	TRANSPONDER (GREY KEY ONLY)
	LHS 98+	TRANSPONDER (GREY KEY ONLY)
	SEBRING CONV. 98+	TRANSPONDER (GREY KEY ONLY)
DODGE	300M 99+	TRANSPONDER (GREY KEY ONLY)
	INTREPID 98+	TRANSPONDER (GREY KEY ONLY)
	NEON 2000+	TRANSPONDER (GREY KEY ONLY)
FORD	CONTOUR 97+	TRANSPONDER (Some)
	CROWN VIC 98+	TRANSPONDER
	EXCURSION 2000+	TRANSPONDER
	EXPEDITION 97+	TRANSPONDER
	EXPLORER 97+	TRANSPONDER
	FOCUS 2000+	TRANSPONDER
	MUSTANG 98+	TRANSPONDER
	F150/250 98+	TRANSPONDER
	RANGER 99+	TRANSPONDER
	TAURUS 96+	TRANSPONDER
	WINDSTAR 2000+	TRANSPONDER
GMC	DENALI 99+	PASSLOCK 2
	ENVOY 99+	PASSLOCK 2
	S-15 JIMMY 98+	PASSLOCK 2
	SAFARI 98+	PASSLOCK 2
	SIERRA 98+	PASSLOCK 2
	SONOMA 98+	PASSLOCK 2
	SUBURBAN 98+	PASSLOCK 2
	YUKON 98+	PASSLOCK 2
	YUKON XL 2000+	PASSLOCK 2
HONDA	ACCORD 98+	TRANSPONDER
	ODYSSEY 98+	TRANSPONDER
	PRELUDE 98+	TRANSPONDER
	S2000	TRANSPONDER
INIFINITI	I30 98+	TRANSPONDER
	Q45 98+	TRANSPONDER
	QX4 98+	TRANSPONDER
JAGUAR	ALL 98+	TRANSPONDER
JEEP	GRAND CHEROKEE 99+	TRANSPONDER (GREY KEY ONLY)
	WRANGLER 99+	TRANSPONDER (GREY KEY ONLY)
LEXUS	ALL 97+	TRANSPONDER
LINCOLN	CONTINENTAL 97+	TRANSPONDER
	LS 2000+	TRANSPONDER
LINCOLN	MARK VIII 97+	TRANSPONDER
	NAVIGATOR 97+	TRANSPONDER
	TOWN CAR 97+	TRANSPONDER
MERCEDES	ALL 97+	TRANSPONDER

VEHICLES WITH FACTORY ANTI-THEFT SYSTEMS

Manufacturer	Model/Year	Anti-theft
Acura	TL 99+	TRANSPONDER
	CL 98+	TRANSPONDER
	RL 99+	TRANSPONDER
	INTEGRA 00 +	TRANSPONDER
	NSX	TRANSPONDER
AUDI	A4 00+	TRANSPONDER
	A6 00+	TRANSPONDER
	A8 98+	TRANSPONDER
BMW	ALL 97+	TRANSPONDER
BUICK	CENTURY 97+	VATS
	LESABRE 90-96, 2000	VATS
	PARK AVE 91-96	VATS
	PARK AVE 97+	TRANSPONDER
	REGAL 93-96	VATS (Some)
	RIVIERA 93-99	VATS (Some)
	ROADMASTER 93-96	VATS
	SKYLARK 96-98	PASSLOCK 1
CADILLAC	ALLANTE 91-93	VATS
	BROUGHAM 90-96	VATS
	CATERA 98+	TRANSPONDER
	DEVILLE 92-96	VATS
	DEVILLE 99+	TRANSPONDER
	ELDORADO 89-98	VATS
	ELDORADO 99+	VATS
	ESCALADE 99+	PASSLOCK 2
	FLEETWOOD 90-96	VATS
	SEVILLE 90-98	VATS
	SEVILLE 99+	TRANSPONDER
	SLS/ STS 97+	TRANSPONDER
CHEVROLET	ASTRO 98+	PASSLOCK 2
	BLAZER 98+	PASSLOCK 2
	CAMARO 86+	VATS
	CAVALIER 95-99	PASSLOCK 1
	CAVALIER 2000+	PASSLOCK 2
	CORVETTE 88+	VATS
	EXPRESS 98+	PASSLOCK 2
	IMPALA 2000+	PASSLOCK 2
	LUMINA 96+	VATS
	MALIBU 97+	PASSLOCK 2
	MONTE CARLO 96-99	VATS
	MONTE CARLO 2000+	PASSLOCK 2
	FULL-SIZE PU 98+	PASSLOCK 2
	S-10 98+	PASSLOCK 2
	SAVANNAH 98+	PASSLOCK 2
	SUBURBAN 98+	PASSLOCK 2
	TAHOE 98+	PASSLOCK 2
	VAN 98+	PASSLOCK 2
	VENTURE 99+	TRANSPONDER

OPTIONAL PLUG IN T-HARNESS

T-Harness purchases may be made through Direct Wholesale at www.directwholesale.net or by calling 800-659-0764.

The T-Harness is an optional accessory designed to cut the install time of the remote starter by 50% or more. Each T-Harness is manufactured specifically for your vehicle. The T-Harness will eliminate any wire splicing needed to make the remote starter operational.

The T-Harness will plug in between the vehicles ignition switch then directly to the remote starter control module.

Note: When using a T-harness the following wires must be hooked up from the sixteen pin harness.
1. Black Wire (ground)
2. Blue with Black Stripe Wire (brake input)

Additional Note: Vehicles with an anti-theft system will also require a bypass module. (Part#791)

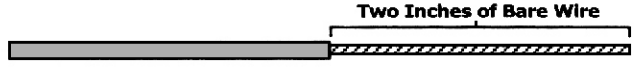
USING YOUR TEST PROBE

To operate your test probe, connect the **BLACK** clip to a good chassis ground. Connect the **RED** clip to a good 12V positive source. If you cannot locate a 12V positive source, it will be necessary to first use the test probe with just the **BLACK** clip to a good chassis ground, then probe the ignition harness for the 12V positive source. Make sure the key is out of the ignition switch prior to probing these wires. If the **RED** light on the test probe illuminates, this is a 12V positive source. Strip this wire back and then clip the **RED** clip to this wire. When the test probe is connected correctly, both the **RED** and the **GREEN** lights will be dimly illuminated. If a positive source is probed, the **RED** light will glow brightly and the **GREEN** light will go out. If a negative, or ground, source is probed, the **GREEN** light will glow brightly and the **RED** light will go out.

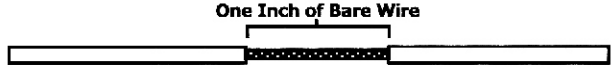
MAKING CONNECTIONS

NOTE: In most cases you should not cut your vehicle wire in two. If it is necessary to cut a factory wire, see diagram on page 8-9.

1. Strip back two inches of insulation on the wire from the remote starter.



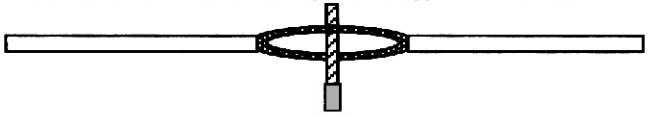
2. Strip back one inch of insulation on the wire you need to connect to.



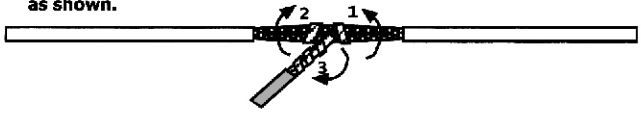
MAKING CONNECTIONS

3. Separate the vehicle wire as shown. Make the separation large enough to fit the other wire through.

4. Insert the wire(s) from the starter through the hole as shown. If two or more wires are inserted, wrap them in opposite directions.



5. Wrap the wire around one side then the other and finally around itself as shown.



6. Use electrical tape to wrap. Be sure to cover the wire about two inches on either side of the connection. First pull the wire that you have just connected along side the wire you connected to, tape and wire tie them together. Use this method for all connections.

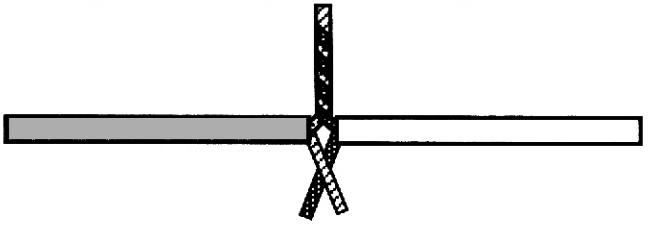
CAUTION: All wires must be wrapped with tape and wire tied.

MAKING END TO END CONNECTIONS

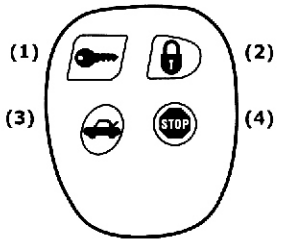
Use this method ONLY when connecting two separate wires end to end.

1. When tying two separate wires together at their ends, strip back one inch of insulation on both wires and separate the strands of wire as shown below.

2. Twist upper wires together, twist lower wires together as shown.



HOW TO USE YOUR REMOTE TRANSMITTER



(1) Starts your vehicle.

(2) Locks and unlocks your power door locks.

(3) Pops your trunk

(4) Shuts engine off and programs runtime.

Starting the Vehicle with the Remote Transmitter
Press and release **Button #1** (start). The parking lights will flash once, confirming the car starter received the signal. The car will then start and the parking lights will turn on (in approximately 10 seconds) and remain on in TACHLESS MODE or will turn on instantly and remain on in TACH MODE. To shut off the engine before the preset time, press **Button #4** (stop), press the brake pedal or open the hood.

Pit Stop: Exiting the Car with the Engine Running
Make sure the transmission is in park; press **Button #1** (start) before turning the ignition switch off. The parking lights will flash once and then remain on. (The engine will remain running for the preset time.)

Keyless Entry Operation
Press **Button #2** (lock/unlock), the doors will lock and the parking lights will flash once. Press **Button #2** again, the doors will unlock and the parking lights will flash twice and remain on for one minute or until you turn the ignition on and press the brake.

Dome Light Option
The remote starter includes an optional output that can be used to operate the dome light when pressing **Button #2**, unlock your power door locks. The dome light will remain on for one minute and until you turn the ignition on and press the brake.

Trunk Release Output
The remote car starter includes an optional output from our unit that with a press and release of **Button #3** will give a pulse of (+) positive voltage or (-) negative voltage (depending on he dipswitch settings) for .75 seconds and if **Button #3** is held down, this output will hold (+) positive voltage on this wire until Button #3 is released. The parking lights will remain on for as long as this button is held down. With a momentary press of this button the parking lights will flash once. This output can be used to operate a power trunk release, power sliding doors, rear lift gates, or operate a power sunroof.

Runtime Confirmation (Engine Not Running)
To check programmed runtime, press and release **Button #4** (stop), the parking lights will flash for the programmed length of time. Each flash will equal 5 minutes of runtime. **Example: Three parking light flashes represents 15 minutes of runtime.**

OPERATOR PROGRAMMING INSTRUCTIONS

Tachless Mode - ON
Press and hold the brake pedal. Press and hold **Button #3** until the parking lights flash three (3) times, release, press and release **Button #4**, the parking lights will flash twice. Release the brake, the parking lights will flash three (3) times. The unit is now programmed for Tachless Mode.

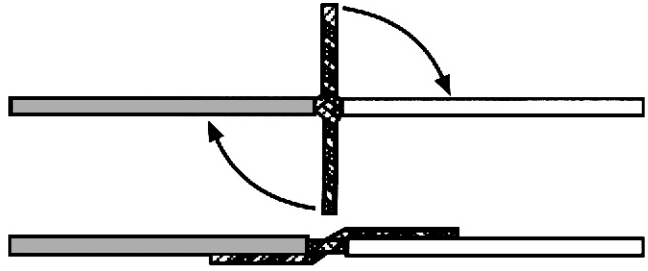
Dual Pulse Door Unlock
If your vehicle requires a Dual Pulse Unlock output to unlock the doors or to disarm your factory alarm, you must program your unit to do this. Press and hold the brake pedal, press and hold **Button #4** until the parking lights flash four (4) times. Release **Button #4** then press **Button #3** and release. The parking lights will flash once the unit is now programmed to dual pulse the unlock output. Release the brake and the parking lights will flash three (3) times. To turn Dual Pulse Unlock off, repeat the above steps, then when you press and release **Button #3**, the parking lights will flash twice. Release the brake, the parking lights will flash three (3) times.

Programming Runtime
Press and hold **Button #4**. The parking lights will flash once for every five (5) minutes you want the engine to run. Release button at desired runtime. For the RS1100, the run time is 5 to 15 minutes. Press and hold **Button #4** (approximately (10) seconds). The parking lights will flash (1) time for every five minutes you desire the engine to run. Simply release the button when you reach the desired run time. Example: (3) parking light flashes = 15 minute run time setting. You do not need to press the brake pedal to program run time.

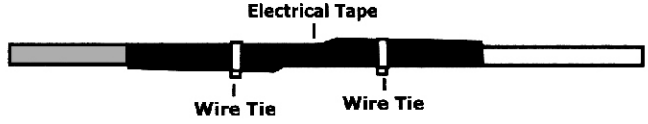
Clearing the Memory of the Unit
Press and hold the brake pedal, now cycle the key in the ignition switch from OFF to RUN (not start) five (5) times within four (4) seconds. Release the brake, now try the remote. The unit should not function with the remote. If the unit does not function, unplug the two RED power wires from the top of the unit and the 16-pin harness from the side, wait one (1) minute and plug everything back in. Press **Button #4** (stop) the parking lights will flash three (3) times, the unit is now back to factory default and ready to operate.

MAKING CONNECTIONS

3. Lay upper twisted pair of wires over right wire as shown. Bring lower twisted pair of wires up to meet the left wire as shown.



4. Use electrical tape to wrap, be sure to cover about 2 inches on either side of connection. Secure with wire ties as shown.



Use this method ONLY when connecting two separate wires end to end.

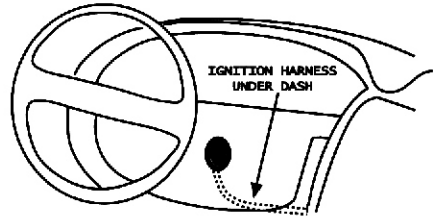
LOCATING & MAKING CONNECTIONS

For wiring charts please visit our website, www.bulldogsecurity.com.

Most of the wires you will be using will be in a taped or nylon sleeve coming from the ignition switch. You must find and remove about six inches of this outer covering for testing and connecting.

CONSTANT POWER (+12V, key in any position including off)
Make all connections as close to the ignition switch as possible.
These wire(s) are in your vehicle's main ignition harness, usually located in the steering column coming from the ignition switch. Probe each wire with your provided test probe. The correct wire(s) will show +12V and the RED light will glow bright on the test probe when the ignition switch is in these **5 positions (ACC-LOCK-OFF-RUN-CRANK)**.

1. If your vehicle has only (1) constant power wire, attach both heavy gauge **RED** wires to it.
2. If your vehicle has (2) constant power wires, attach one **RED** wire to each.



LOCATING & MAKING CONNECTIONS

IGNITION WIRE(S) (+12V in run, crank and sometimes accessory) Make all connections as close to the ignition switch as possible.
The ignition wire(s) are also located in the main harness coming from the ignition switch. Check your chart for probable colors and probe each wire with your provided test probe. The correct ignition wire(s) will show +12V and the RED light will glow bright when the ignition switch is in the **RUN, CRANK** and sometimes in the **ACCESSORY** (newer GMs) position. The correct wires will not show +12V when in the **OFF** or **ACCESSORY** position (other than some GMs).

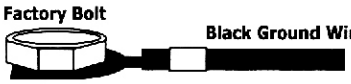
1. If your vehicle has only one **(1) ignition** wire connect the heavy gauge **WHITE** wire to the Ignition #1 wire in the Ignition Switch Harness.
2. If your vehicle has **(2) ignition** wires, connect the **WHITE** wire as stated in **step 1**, to **Ignition #1**, then connect the heavy gauge **WHITE WITH RED STRIPE** wire to the **Ignition #2** wire in the Ignition Switch Harness.
3. If your vehicle has **(3) Ignition** wires connect the heavy gauge **WHITE** wire to the **Ignition #1** wire and **Ignition #3** wire in the Ignition Switch Harness. Make sure you connect the **WHITE WITH RED STRIPE** wire to the **Ignition #2** wire as stated in **Step 2**.

ACCESSORY WIRE(S) THAT POWER THE HEATER/BLOWER MOTOR (+12V in run or on positions) This wire is also in the main ignition switch harness. Make this connection as close to the ignition switch as possible.
Most vehicles will have one (1) accessory wire; however **some** Fords, newer GM vehicles and Chrysler 94 and up will have two (2) or more accessory wires. Check your wire color chart and then verify these wire(s). The correct wire(s) will show +12V and the RED light will glow bright when the ignition switch is in the **RUN** or **ON** positions. This wire(s) will not show +12V when the ignition switch is in any other position.

1. If your vehicle has only one (1) accessory wire connect the heavy gauge **WHITE WITH BLACK STRIPE** wire to this wire.
2. If your vehicle has two (2) accessory wires (some GMs and most Fords), connect the **WHITE WITH BLACK STRIPE** wire to both accessory wires. At this time, if you did not use the Ignition #2 heavy gauge **WHITE WITH RED STRIPE** wire (if your vehicle does not have an Ignition #2 wire) you can take that **RED WITH WHITE STRIPE** wire and attach it to the Accessory #2 wire, this way you do not have to tie both the Accessory #1 wire and the Accessory #2 wires together on the **WHITE WITH BLACK STRIPE** wire from the main module.

STARTER/CRANK WIRE (+12V in the start position only) Make all connections as close to the ignition switch as possible.
The starter/crank wire is also in the main harness. Check your chart for probable colors and verify the wire. The correct wire(s) will show +12V and the RED light will glow bright **only** in the **crank** position. This wire will not show +12V in any other position. Attach the **YELLOW WITH BLACK STRIPE** wire to it. **NOTE:** Most Nissans will have two (2) starter/crank wires. Both must be connected to the **YELLOW WITH BLACK STRIPE** wire. In this case, connect both wires from the ignition switch harness to the **YELLOW WITH BLACK STRIPE** wires from the main module.

CHASSIS GROUND
Locate an easy to get to bolt or screw located under the driver's side of the dash and attach the **BLACK** ground wire from the 16-pin harness securely as pictured. **A good ground is vital for your system to operate correctly.**



Note: Remove any paint below the spade connector.

OPTIONAL FEATURES

Once you have determined that your door locks are Type C system, you must cut the unlock wire in two. Now you need to determine which wire is coming from the switch and the motor sides of each lock and unlock wire. First, test the lock wires, press and hold the door lock switch in the lock position. Test both lock wires, the wire that shows (+) positive, and the RED light glows bright, will be the switch side and the other wire will be the motor side of this circuit. Mark these wires. Repeat these steps for the unlock wire by pressing and holding the door lock switch in the unlock position. The wire that shows (+) positive, and the RED light glows bright, will be the switch side and the other wire will be the motor side of the unlock circuit.

OPERATOR PROGRAMMING INSTRUCTIONS

AUXILIARY INPUT (-) / BLUE
If you wish to use this starter with an aftermarket alarm, connect the **BLUE** wire from the 16-pin harness to the second or third channel (-) output of your existing alarm. When the output is activated, a (-) signal will be supplied to the remote starter which will start the vehicle. **NOTE:** You must first use the remote control to operate the remote starter before using the BLUE wire.

Adding Additional Remotes with a Working Remote Control
Press and hold brake. Next, press and hold **Button #1** on the working remote until the parking lights flash once. Release **Button #1** while continuing to hold the brake then press and release **Button #4** on the **new** remote. The parking lights will flash three (3) times confirming that the new remote was learned.

Adding Additional Remotes without a Working Remote Control
To program a new (replacement) remote without a working remote, you will need to clear the E-Prom first. Follow the steps for Clearing the Memory of the Unit on page 20. After the unit is cleared, use the new remote control.

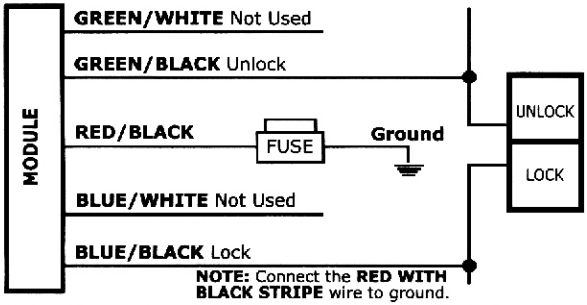
Cold Start On and Off (Degree Select)
Press and hold brake. Next, press and hold **Button #2** until the parking lights flash twice, release, press and hold **Button #2**. Each parking light flash is a progression in degrees. Flash #1 is -40ºF, flash #2 is -30ºF, flash #3 is -20ºF, flash #4 is -10ºF, flash #5 is 0ºF, flash #6 is +10ºF, flash #7 is +20ºF. Two rapid flash parking light flashes is Cold Start Off. Release the brake, the parking lights will flash three (3) times. **NOTE:** Factory setting is OFF.

Door Lock Pulse Length (Long) (For European type door locks)
Press and hold brake. Next, press and hold **Button #3**, the parking lights will flash three (3) times, release, press and release **Button #1**. The parking lights will flash once, the door lock pulse length will be 3.5 seconds. Release the brake, the parking lights will flash three (3) times.

Tach Mode - ON
Press and hold the brake pedal. Press and hold **Button #3** until the parking lights flash three (3) times. Release. Press and release **Button #4**, the parking lights will flash (1) time. Release the brake, the parking lights will flash three (3) times. The unit is now programmed for Tach Mode. **NOTE:** Factory setting is Tachless Start ON.

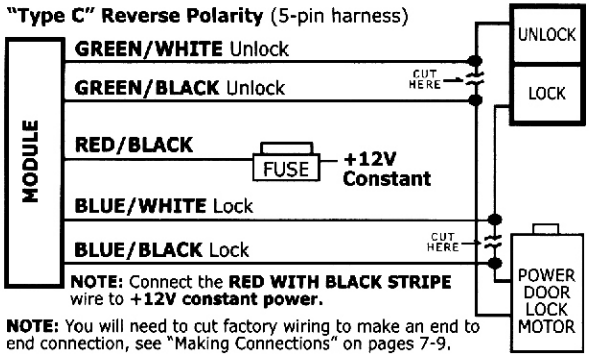
OPTIONAL FEATURES

"Type B" (-) Negative (5-pin harness)



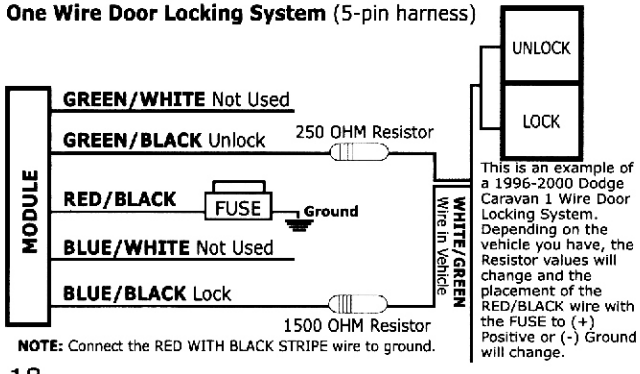
NOTE: Once you have made the connections for the 5-pin door lock harness, you will need to plug the door lock harness into the main module 5-pin plug on the front of the unit.

"Type C" Reverse Polarity (5-pin harness)



NOTE: You will need to cut factory wiring to make an end to end connection, see "Making Connections" on pages 7-9.

One Wire Door Locking System (5-pin harness)


MODULE
GREEN/WHITE Not Used
GREEN/BLACK Unlock
250 OHM Resistor
RED/BLACK
FUSE
Ground
BLUE/WHITE Not Used
BLUE/BLACK Lock
1500 OHM Resistor
WHITE/GREEN Wire in Vehicle
UNLOCK
LOCK
This is an example of a 1996-2000 Dodge Caravan 1 Wire Door Locking System. Depending on the vehicle you have, the Resistor values will change and the placement of the RED/BLACK wire with the FUSE to (+) Positive or (-) Ground will change.

NOTE: Connect the RED WITH BLACK STRIPE wire to ground.

LOCATING & MAKING CONNECTIONS

FACTORY ALARM SHUT DOWN WIRE (FASD) (-) RED WITH BLACK STRIPE WIRE
If your vehicle is equipped with a factory alarm system (as most new model vehicles with a factory keyless entry are) OR, if your vehicle DOES NOT have a factorty remote control that honks the horn when locking and unlocking the doors or when you use the key in the driver's door, you DO NOT get a light on the dash that says "security" then mostly you will not need to use this wire. If your vehicle is so equipped. Probe for a small gauge wire (usually found in the driver's side kick panel) that shows (-) ground and the GREEN light will glow bright when the door lock cylinder is turned to the unlock position using the key and will show +12V and the RED light will glow bright before turning the key. **NOTE:** Some factory disarm wires remain neutral (both the GREEN and the RED lights will be dimly illuminated) before you turn the key to unlock instead of +12v positive. Connect the **RED WITH BLACK STRIPE** wire from the 16-pin harness to this wire.

IGNITION OUTPUT (-) (Security bypass output wire) WHITE WIRE
This wire will be used to operate the security bypass module. This **WHITE** wire holds a ground output the entire time the remote starter is activated. Connect this wire to the **BLUE** wire on the bypass module to control when the bypass is on and off.

HOOD SWITCH (-) BLACK WITH BLUE STRIPE WIRE
This feature will keep the engine from starting, or shut off the engine when the hood is opened (this is ONLY when in remote start mode, this hood switch has no control over an engine when started with the ignition key or under normal operation). Locate a good chassis ground. Check to make sure that the hood switch remains neutral when the hood is closed and shows ground when the hood is open. Route the **BLACK WITH BLUE STRIPE** wire from the 16-pin harness through the firewall and connect it to the bottom of the hood switch.

BRAKE INPUT (+) BLUE WITH BLACK STRIPE WIRE
The brake wire is located on the switch near and above the brake pedal. If you cannot locate this wire you will then need to locate a wire at the rear window brake light or at the brake light system in the rear of the vehicle.The correct wire will show +12V and the RED light will glow bright only when the brake is pressed. Connect the **BLUE WITH BLACK STRIPE** from the 16-pin harness to this wire.

TACH INPUT (Optional) **BLACK WITH WHITE STRIPE WIRE**
If you have chosen the TACHLESS start option, simply proceed to the next step and skip the following instructions. Make sure to tape the **BLACK WITH WHITE STRIPE** wire if not used. For TACH mode connect the **BLACK WITH WHITE STRIPE** wire from the 16-pin harness to the negative side of the coil or the tach wire at the coil pack under the hood. To find the coil pack follow the spark plug wires back to their beginning point. To operate in tach mode, make sure to program tach mode on, see programming Tach Mode on page 19.

PARKING LIGHTS (+) or (-) Ouput / BROWN WIRE

CAUTION: Please check the position of the switch before the wire connection is made. You may cause damage to the control module if the incorrect switch polarity is chosen.

Turn the parking lights to the ON position. (NOT YOUR HEADLIGHTS). Probe the wire(s) coming from your headlight control switch. The correct wire will show +12V and the RED light will glow bright only when the parking lights are ON. Make sure the dip switch for the parking light output is flipped to the (+) positive IN position. (IN is set towards the onboard relays) If this wire tests as a (-) negative, the GREEN light glows bright with the parking light switch on. Make sure the dip switch for the parking light output is flipped to the (-) negative OUT position.

LOCATING & MAKING CONNECTIONS

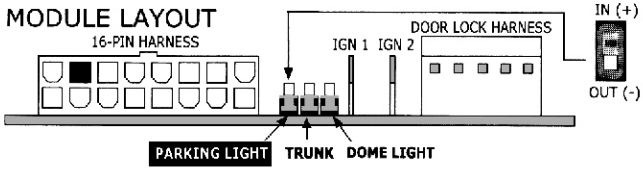
The parking light circuit is rated at 10 amps max and is suitable for most vehicles. If your vehicle has additional lights or devices added to the parking light circuit, a volt meter should be used to measure the current draw. If the current draw exceeds 10 amps, a relay is required for the parking light circuit (Part #775).

The negative output is only 250ma and is designed for relay or BCM (computer module) connections only.

When not hooking directly to the Body control module a relay must be used to energize a negative circuit.

The part number for the relay is #775. You can purchase this part online at www.directwholesale.net or call 800-659-0764.

(OUT is set away from the onboard relays) After you have adjusted the dip switch for positive or negative, connect the BROWN wire from the 16-pin harness to the parking light wire in the vehicle.

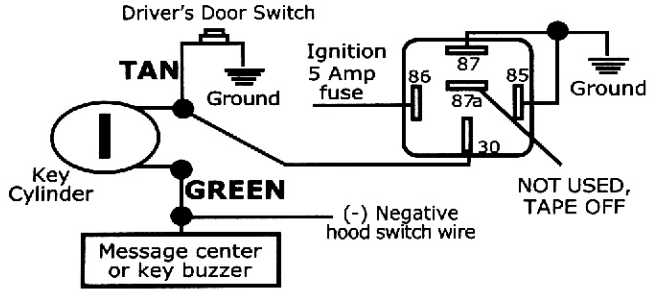


NEUTRAL SAFETY SWITCH

MECHANICAL NEUTRAL SAFETY SWITCH (Rear Wheel Drive Only)
When installing a Bulldog remote starter on GM vehicles or Dodge Dakotas built prior to 1996, you must:

Use the diagram below to create a circuit that will prevent the remote starter from starting the vehicle unless the key is removed from the ignition switch.

PRE-1996 GM REAR WHEEL DRIVES WITH PURPLE CRANK WIRE
Optional relay required.

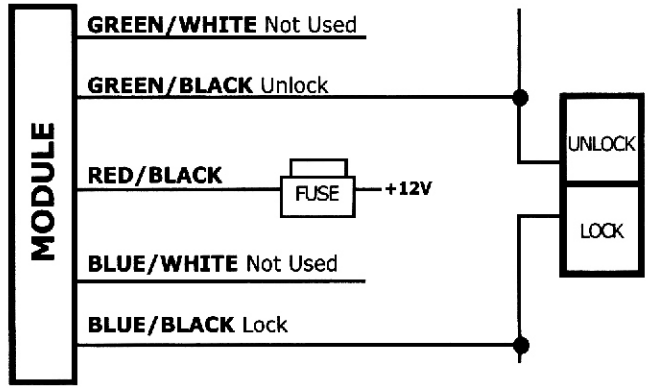


OPTIONAL FEATURES

"Type B" Door Lock Test (Most Imports, some newer Fords)
Probe both of your door lock wires going to the door lock switch usually located in the driver's kick panel. Probe the lock and the unlock wires, the test probe will glow both GREEN and RED (dimly) on both the lock and the unlock wires. Press and hold the lock button on the switch and test the lock wire. The correct wire will test (-) negative and the GREEN light will glow bright. Release the lock button and this wire should again glow both GREEN and RED (dimly). Now press and hold the unlock button on the switch and test the unlock wire. The correct wire will test (-) negative and the GREEN light will glow bright. Release the unlock button and this wire should again glow both GREEN and RED (dimly). Your vehicle has a **"Type B"** door locking system. Make sure to mark which wire is lock and unlock. Proceed to Connecting Door Locks. Make sure to mark which wire is lock and unlock.

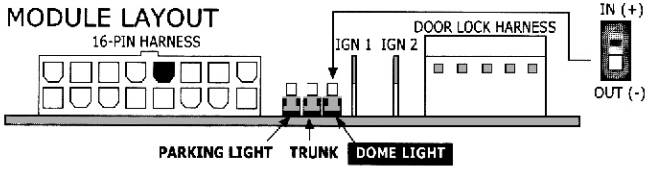
"Type C" Door Lock Test (Most Fords, some Chryslers, GM Trucks)
Once you have located the lock and unlock wires in the vehicle using the wire color chart in this manual or from our website, you will need to perform the same test as for the **"Type A"** system. Once you have completed this test, and it tests the same as a **"Type A"** (as it should) you will need to cut the lock wire in two. Now try the door lock switch in both the lock and unlock positions. The door locks should not function, this is a **"Type C"** system. Proceed to page 18, Connecting Door Locks. **NOTE:** If for any reason the doors unlock but do not lock with this wire, cut in two, this is a **"Type A"** system.

"Type A" (+) Positive (5-pin harness)



NOTE: Connect the **RED WITH BLACK STRIPE** wire to **+12V constant.**

OPTIONAL FEATURES



TRUNK RELEASE (+) or (-) Output / WHITE WITH RED STRIPE WIRE

CAUTION: Please check the position of the switch before the wire connection is made. You may cause damage to the control module if the incorrect switch polarity is chosen.

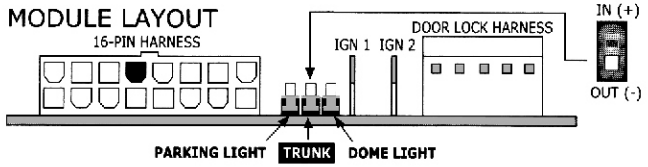
Locate the trunk release or sliding van door release wire coming from the back of the release switch. To determine if your release is tripped by a (+) positive or a (-) negative, press the trunk or sliding door button and probe this wire with the test probe. If the RED light glows bright, you have a (+) positive release. Make sure you flip the trunk release output dip switch to the IN position (IN is set towards the onboard relays) if the GREEN light glows bright, you have a (-) negative release. Make sure you flip the trunk release output dip switch to the OUT position (OUT is set away from the onboard relays).

The negative output is only 250ma and is designed for relay or BCM (computer module) connections only.

When not hooking directly to the Body control module a relay must be used to energize a negative circuit.

The part number for the relay is #775. You can purchase this part online at www.directwholesale.net or call 800-659-0764.

You will need to connect the **WHITE WITH RED STRIPE** wire from the 16-pin harness to the wire from your release switch.

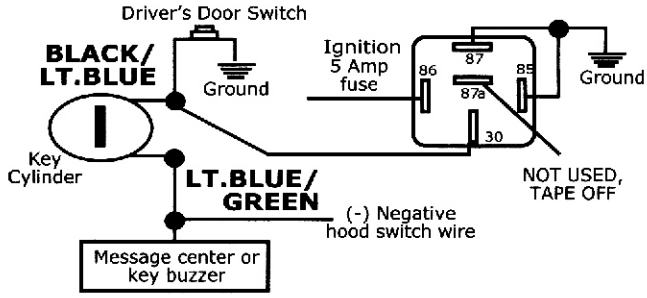


TESTING: Door Locks

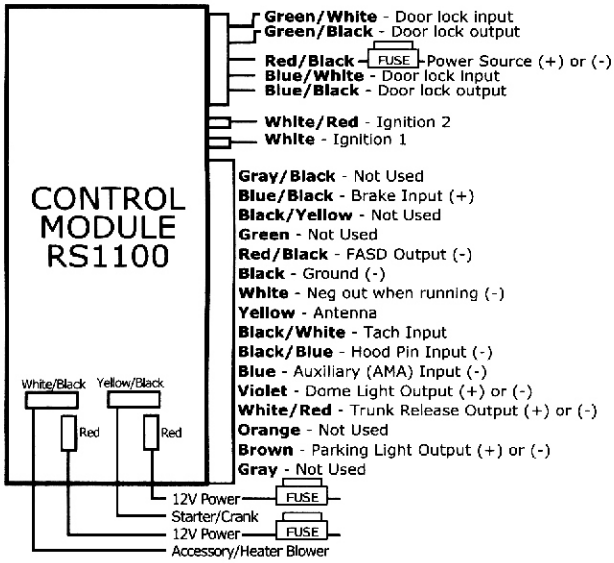
"Type A" Door Lock Test (Most GMs and some Chryslers)
Probe both of your door lock wires going to the door lock switch usually located in the driver's kick panel. Probe the lock and the unlock wires, the test probe will show a (-) negative and the GREEN light will glow bright on both the lock and the unlock wires. Press and hold the lock button on the switch and test the lock wire. The correct wire will test (+) positive and the RED light will glow bright. Release the lock button and this wire should show a (-) negative and the GREEN light will glow bright. Now press and hold the unlock button on the switch and test the unlock wire. The correct wire will test (+) positive and the RED light will glow bright. Release the unlock button and this wire should show a (-) negative and the GREEN light will glow bright. Your vehicle has a **"Type A"** door locking system. Make sure to mark which wire is lock and unlock. Proceed to Connecting Door Locks. **NOTE: "Type A"** and **"Type C"** locks will test the same. Make sure you run both tests before making your connections.

NEUTRAL SAFETY SWITCH

PRE-1996 DODGE DAKOTAS
Optional relay required.



CONNECTING THE WIRING HARNESS


CONTROL MODULE RS1100
Green/White - Door lock input
Green/Black - Door lock output
Red/Black - FUSE - Power Source (+) or (-)
Blue/White - Door lock input
Blue/Black - Door lock output
White/Red - Ignition 2
White - Ignition 1
Gray/Black - Not Used
Blue/Black - Brake Input (+)
Black/Yellow - Not Used
Green - Not Used
Red/Black - FASD Output (-)
Black - Ground (-)
White - Neg out when running (-)
Yellow - Antenna
Black/White - Tach Input
Black/Blue - Hood Pin Input (-)
Blue - Auxiliary (AMA) Input (-)
Violet - Dome Light Output (+) or (-)
White/Red - Trunk Release Output (+) or (-)
Orange - Not Used
Brown - Parking Light Output (+) or (-)
Gray - Not Used
White/Black
Yellow/Black
Red
Red
12V Power - FUSE
Starter/Crank
12V Power - FUSE
Accessory/Heater Blower

CAUTION: Before connecting the 16-pin harness to the module. All unused wires must be taped. Double check all connections to be sure they are secure and properly wrapped with electrical tape. Mount the unit under the driver's side dash. Plug the 16-pin harness into the main control module. Once it is plugged in. **Plug in all six (6) spade connectors on the module. Be sure to plug connectors in their correct openings.**

TESTING THE REMOTE STARTER

Make sure the hood on the vehicle is closed. Press the start button, the parking lights will flash once and the vehicle will start and run. **NOTE:** If your unit receives a signal and the vehicle does not start and run, or starts then dies within five (5) seconds, you may have a factory anti-theft system. Refer to pages 14, 22 - 24 to see if this applies to your vehicle. If your vehicle starts and remains running and you wish to connect your door locks, proceed to page 16, Testing Door Locks, and follow the provided instructions.

FACTORY ANTI-THEFT SYSTEMS

Most newer vehicles manufactured today will have some type of anti-theft system.

An anti-theft system is a device installed by the manufacturer to prevent the vehicle from being started without an ignition key. (Not a noise making alarm system.)

We manufacture one bypass model to accommodate every vehicle on the market, **Part # 791**.

FACTORY ANTI-THEFT SYSTEMS

There are four basic types of anti-theft systems on today's vehicles.

VATS OR PASSKEY
This system has a resistor pill in the ignition key and is on select models of General Motors vehicles only. Generally 1985-present models.

PASSLOCK 1
This system does not have a pill in the key but will have a light on the dash that states either "Security" or "Anti-Theft".

Passlock 1 is only on select models of General Motors vehicles. Generally 1995-1999 models.

PASSLOCK 2
This system does not have a pill in the key but will have a light on the dash that states either "Security" or "Anti-Theft".

Passlock 2 is only on select models of General Motors vehicles. Generally 1998-present model years.

TRANSPONDER
This system has a radio frequency tube hidden inside the plastic or rubber portion of the ignition key.

Transponder systems are available on every automobile manufactured. Generally 1997-present model vehicles.

Check www.bulldogsecurity.com and look under Wire Diagrams to verify if your vehicle has an anti-theft system .

If your vehicle is equipped with a factory anti-theft system you will need bypass module Part #791.

This item is available at your retailer or online at www.directwholesale.net or by calling 1-800-659-0764.

OPTIONAL FEATURES

DOME LIGHT (+) or (-) Output / Violet Wire

CAUTION: Please check the position of the switch before the wire connection is made. You may cause damage to the control module if the incorrect switch polarity is chosen.

To determine if your dome light is turned on with (+) positive or (-) negative trigger, probe for a wire in the driver's kick panel that controls the dome light or an underdash light. With the door open and the dome light on, probe the wire. When probing this wire and the GREEN light glows bright, close the door. If the dome light turns out and the GREEN light and the RED light glows dimly or the RED light glows bright, this is a (-) negative dome light trigger. Make sure the dome light switch is in the "out" position.

The negative output is only 250ma and is designed for relay or BCM (computer module) connections only.

When not hooking directly to the Body control module a relay must be used to energize a negative circuit.

The part number for the relay is #775. You can purchase this part online at www.directwholesale.net or call 800-659-0764.

With the door open and the dome light on, probe the wire. When probing this wire and the RED light glows bright, close the door. If the dome light turns out and the GREEN light and the RED light glows dimly or the GREEN light glows bright, this is a (+) positive dome light trigger. Make sure the dome light switch is in the "in" position. Connect the door wire from the 16-pin harness to the dome light wire in the vehicle.